ENVIRONMENTAL IMPACT STATEMENTS

Low Emission Boiler System Proof-of-Concept Project

Description:

The proposed action is DOE funding up to 50% of the total cost for development of coal-fired Low Emission Boiler System (LEBS) technology at the proof-of-concept scale. To qualify for this development, pre-established targets were set by DOE for significantly reduced emissions, improved thermal efficiency, and lower cost of electricity compared to conventional coal-fired electric generating plants.

The Department was initially proposing to consider support for up to three specific approaches for proof-of-concept testing based on technology development efforts that were being pursued by private sector companies. One of the approaches was removed from consideration when the technology developer withdrew his proposal for proof-of-concept development. A second approach was eliminated from consideration for technical reasons.

The remaining proposal encompasses an approach for proof-of-concept development that would involve construction and operation of a new 80 MWe facility at the Elkhart Mine of Turris Coal Company, Elkhart, Illinois. The facility would be a coal-burning, mine-mouth power plant, with coal supply provided from a portion of the mine's output. A slagging furnace would be used to achieve low emissions of nitrogen oxides. A catalytic reactor system would be used to test further reduce nitrogen oxide levels and sulfur oxides. A supercritical steam cycle would be used to achieve the target efficiencies.

Projected Schedule:

Determination: September 5, 1996 Notification: September 5, 1996

Internal Scoping: October - November 1996

Notice of Intent: December 19, 1996

Public Scoping: December 1996 - February 3, 1997

Preliminary Draft EIS: February 1998
Public Distribution: April 1998
Public Hearing: June 1998
Preliminary Final EIS: August 1998
Draft Record of Decision: September 1998

Estimated Cost: \$300,000

Clean Power from Integrated Coal/Ore Reduction (CPICOR)

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant that integrates the production of molten iron for steel making with the production of electricity for utility distribution. The demonstration project, proposed for location at Geneva Steel Company's existing steel plant at Vineyard, UT, would produce approximately 3,300 tons per day of hot metal and up to 195 megawatts of electricity.

The proposed facility would produce molten iron by the continuous reduction and smelting of iron ore using two integrated operations: a reduction chamber in which iron ore is reduced using gas obtained directly from coal pyrolysis and a melter-pyrolyzer in which the reduced iron ore is melted in a coal pyrolysis chamber and a medium energy content gas is produced. The proposed facility would include a wet scrubber gas cleaning system to remove particulate matter, a combustion turbine, an air separation unit to provide oxygen for the melter pyrolyzer, a heat recovery steam generator, a steam turbine generator, and supporting auxiliary systems.

Projected Schedule:

Determination: December 27, 1996
Notification: December 27, 1996
Internal Scoping: February 12, 1997

Notice of Intent:

Public Scoping:

Preliminary Draft EIS:

Public Distribution:

Public Hearing:

Preliminary Final EIS:

Draft Record of Decision:

April 1998

May 1998

March 1999

April 1999

June 1999

July 1999

Estimated Cost: \$ 475,000

Lakeland McIntosh Unit 4 Demonstration Project

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant for Pressurized Circulating Fluidized Bed coal combustion technology. The demonstration project, proposed for location at the City of Lakeland's C.D. McIntosh Power Plant at Lakeland, FL, would produce 185 megawatts of electricity.

Projected Schedule:

Determination: March 18, 1997
Notification: March 18, 1997
Internal Scoping: March - April 1998

Notice of Intent: May 1998 Public Scoping: June 1998

Preliminary Draft EIS: September 1998
Public Distribution: November 1998
Public Hearing: January 1999
Preliminary Final EIS: May 1999
Draft Record of Decision: July 1999

Estimated Cost: \$490,000

Jacksonville Electric Authority (JEA) Fluidized Bed Combustor

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant for Circulating Fluidized Bed (CFB) coal combustion technology. The proposed project would involve construction and operation of a CFB combustor fueled by coal and petroleum coke to repower an existing steam turbine at JEA's Northside Generating Station in Jacksonville, FL, to generate nearly 300 megawatts of electricity. JEA plans to form an alliance with Foster Wheeler Corporation through its subsidiary, Foster Wheeler Power Systems, Inc., to jointly own and operate the project.

Projected Schedule:

Determination: September 22, 1997
Notification: September 29, 1997
Internal Scoping: October 7, 1997
Notice of Intent: November 13, 1997

Public Scoping: December 3, 1997
Preliminary Draft EIS: August 1998
Public Distribution: October 1998
Public Hearing: November 1998
Preliminary Final EIS: January 1999
Draft Record of Decision: March 1999

Estimated Cost: \$400,000

ENVIRONMENTAL ASSESSMENTS

Rock Springs Environmental Remediation

Description:

The proposed action is DOE remediation of a Rock Springs, WY, site previously used to test in-situ oil shale retorting technology. As a result of this testing, the groundwater at the site is contaminated with benzene, toluene, xylene, and other organic chemicals. An agreement with the State of Wyoming was signed by DOE for clean-up of this site.

Projected Schedule:

Determination: August 1998 Notification: August 1998

Internal Scoping: September - October 1998

Draft Assessment: December 1998

Public Participation: January - February 1999

Final Assessment: March 1999 FONSI or EIS Determination: April 1999

Estimated Cost: \$80,000